

17. ORTHOPTERA.

1. Dermaptera

by

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With 1 plate.

The collection of *Dermaptera* made by Dr. YNGVE SJÖSTEDT in Kilimandjaro and Meru is in some respects quite remarkable. It contains fifteen species, representing eleven genera; three of the species are new to science, and probably a fourth, which I refrain from describing, as it is only represented by a solitary female. Excluding a few which it is impossible to name, owing to immaturity or bad condition, the collection consists of 794 specimens, of which no less than 447, or considerably more than half, are all examples of one new species. Of the other two new species, there are 52 and 57 specimens respectively; of two other species which are not new, but hitherto very insufficiently known, there are 93 and 65 specimens each.

Of the remainder, there are one or two specimens of well known and widely distributed forms which call for no remark; there are eleven of *Forficula rodziankoi* SEM., which seems to be rare, and is not well known, and there are 20 specimens of *Spongiphora quadrimaculata* STÅL, and 35 of *Echinosoma wahlbergi* DÖHRN, neither of which are numerous in collections and museums.

There are only two cases which are poorly represented, but yet of such interest that it is to be regretted that specimens are not more numerous; one of these is a single female of what is certainly a new species of *Pseudochelidura*, and the other case is that of *Pygidicrana bettoni* KIRBY, of which there are two females and a very young larva; this species is probably not rare, but it has been only comparatively recently discovered and is not yet generally known.

We may arrange the species known to occur in the region of Kilimandjaro and Meru as follows:

A. Universally distributed Species.

Chelisoches morio FABR.

Anisolabis annulipes LUC.

Apterygida arachidis YERS.

B. Species widely distributed through Africa.

Echinosoma wahlbergi DOHRN. *Diaperasticus erythrocephalus* OLIV.
Spongiphora quadrimaculata STÅL. *Forficula senegalensis* SERV.

C. Species probably occurring widely in East Africa.

Pygidicrana bettoni KIRBY. *Forficula rodziankoi* SEM.
Diaperasticus sansibariensis KARSCH. *Chaetospania rodens* n.

D. Species probably preinictive, i. e., confined to the district in question.

Anisolabis laeta GERST. *Bormansia africana* VERH.
Anisolabis felix n. *Bormansia impressicollis* VERH.
Forficula sjöstedti n. *Leptisolabis usambarana* VERH.
Pseudochelidura sp. *Leptisolabis theoriae* VERH.

These four last species were not captured by Dr. SJÖSTEDT.

It is worthy of note that all these preinictive species are incapable of flight.

Our knowledge of the *Dermoptera*-fauna of the country round Kilimandjaro and Meru has been hitherto very meagre. GERSTÆCKER published an account of the insects of the neighbourhood of Zanzibar, in 1869 (*Arch. für Naturg.* 1), based on material accumulated by VAN DER DECKEN, in which he described two species of earwigs; one of these is *Anisolabis laeta*, which was taken in numbers by Dr. SJÖSTEDT, and the other *Forficula (Apterygida) gravidula*, which is synonymous with *A. arachidis* YERS., and is now universally distributed throughout the world.

Apart from this paper, I know of no article dealing with the subject, and in order to find any notes supplementary to the material obtained by Dr. SJÖSTEDT, it has been necessary to search for references to this district scattered through the literature of this group of insects.

The remarkable genus *Bormansia* was not found by Dr. SJÖSTEDT; it contains two species which occur in East Africa. *B. africana* VERH. was taken by OSCAR NEUMANN in German East Africa, but the author gives no more precise locality; *B. impressicollis* VERH. was found at Taita by HILDEBRANDT, who brought home a solitary female, and I have several specimens, including males, from Kilimandjaro in my own collection, bought from a German dealer.

Pygidicrana caffra DOHRN is described from specimens found at Zanzibar by HILDEBRANDT (teste KARSCH op. cit.) and is probably widely distributed through Eastern and South-eastern Africa.

The wingless genus *Leptisolabis* VERH. (*Sitzungsbericht der Ges. Naturf.-Freunde*, 1901, No. I. p. 12), contains two species, *L. usambarana* VERH., known from a single male taken by KONRADT at an elevation of 850 metres in December 1891, at Derema in Usambara, and *L. theoriae* VERH., represented in European collections by two males in the Berlin

Museum, from Mikindani in German East Africa; both these species may occur in the region round Kilimandjaro.

In my collection I have a single male of an apparently undescribed species of *Pygidicrana* from Manou in German East Africa, which probably extends its distribution to the district in question.

Labia marginalis THUNB. (*ochropus* STÅL) is recorded from various scattered localities in Africa, and probably occurs also in the neighbourhood of Kilimandjaro.

It is worthy of note that although Dr. SJÖSTEDT has brought home such interesting forms in such numbers, his collection includes no specimens of either *Leptisolabis* nor *Bormansia*, which is to be regretted, as with one exception they are only known from the descriptions of VERHOEFF, which is far from being sufficient, more especially as no drawings of them have as yet been published.

It is also noteworthy that Dr. SJÖSTEDT's collection is unique in one respect; he it includes no specimens of *Labidura riparia*, but a single larva of *Apterygida arachidis*, and of *Anisolabis annulipes* there are seven specimens of a distinct race, which may possibly deserve specific rank. In most collections, from any country, these species easily outnumber all others.

There are also various mountain forms, at present little known, from Abyssinia; perhaps some of these may extend their range as far south as the Alpine regions of Central Africa.

Gen. **Pygidicrana** SERVILLE.

Ann. Sci. nat. XXII, p. 30, 1831.

Pygidicrana bettoni KIRBY.

Ann. Mag. N. H. (7) XI, p. 61, 1903.

Kilimandjaro: Kibonoto, cultivated zone, 1,300—1,900 m., 17. II. 05, 2 females.

Pl. 1, fig. 1. This species was first taken at Samburu and Voi, in British East Africa, by Mr. C. S. BETTON, whose specimens are in the British Museum, with also an immature specimen from Nyassa. It is probably widely distributed, through perhaps not numerous, through central East Africa.

Gen. **Echinosoma** SERVILLE.

Orth. p. 34, 1839.

Echinosoma wahlbergi DOHREN.

Stett. ent. Zeit. XXIV, p. 64, 1863.

Kilimandjaro: Kibonoto. 25. VII. 05. 6 males, 13 females and 9 larvae; 1,300—1,900 m. also 1. III., 2 males and 4 females.

Meru-Niederung: River Ngare na nyuki. 23. XI., one male.

Pl. 1, fig. 2. These specimens are remarkably fine, the males being 16 mm. long. as compared with 12 mm., the length quoted by DE BORMANS for specimens from southern Africa and Zanzibar; it also occurs on the West Coast, and is recorded from Fernando Po.

Gen. **Anisolabis** FIEBER.

In Lotos, III. p. 257, 1853.

Anisolabis laeta GERST.

In Arch. f. Naturg., XXXV. p. 221 (1869).

Kilimandjaro: Kibonoto. 31 males, 39 females and 22 larvae. August to November. Some taken under dead Banana leaves. One male from Kibonoto (12. IV. 06) was taken in a nest of *Termes goliath* SJÖST., with a smaller species of *Termes* *Termes vadschaggae* SJÖST. n. sp. on the walls.

Pl. 1, fig. 3. This species was discovered by Dr. KERSTEN, who took a single female on November 30th, 1862 at an elevation of 8,000 ft. (about 3,200 m.) on Kilimandjaro; it was described and figured by GERSTAECKER (l. c.) in his work upon the results of VAN DER DECKEN's travels in East Africa. Since then it has not been recorded. A somewhat similar species was taken by Fea in Tenasserim, and recorded by DE BORMANS as *A. laeta*, but KIRBY has shown this to be quite distinct.

The male closely resembles the female; it is of the same size (14—16 mm.), the dimensions given by DE BORMANS (*Tierreich*. Forf. p. 46, 1900), (28 mm.) being those of *A. dubronii*, the totally distinct species from Tenasserim, confused by DE BORMANS with *A. laeta*, but separated by KIRBY. The forceps of the male hardly differ from those of the female; they are slightly more slender and more curved, the right branch particularly being more strongly curved at the apex, so that it distinctly overlaps the left branch; the most notable character is the form of the sides of the dorsal plates of the abdomen; when seen from the side, these plates are convex posteriorly, that is, their posterior border is not vertical but produced into an angle pointing posteriorly and this angle is more acute in the apical segments; each segment is also provided with a small but quite distinct horizontal carina which runs along to the apex of the convex portion. This structure is seen to a certain extent in *A. felix* n., which is described later.

Anisolabis annulipes LUCAS.

Ann. Soc. ent. Fr. ser. 2. v. Bull. 841, 1847.

Kilimandjaro: Kibonoto. 1,300—1,900 m. 2 males and 5 females, which all seem to belong to this species; in the ringed feet and antennae, and general appearance they agree, but differ in build; they are longer and more slender than any true *L. annulipes* that I have examined, and the forceps are more slender and longer; they are perhaps a local race of this universally distributed species.

Anisolabis felix n. sp.

(Pl. 1, fig. 4.)

Statura majore; colore atro; caput rufum; antennae fusco-testaceae; elytra nulla; pronotum lateribus sat reflexis; pedes testacei; abdomen glabrum, laeve; segmenta

abdominis lateribus convexis, et apicalibus rugulosis; pygidium brevissimum, obtusum; forcipis brachia maris basi triquetra et fortiter dentata; dehinc attenuata, brachio sinistro sensim, dextro fortiter et angulatum, incurva; feminae triquetra, subsinuata, margine interno crenulato.

Long. corporis . . . 16—19,5 mm. . . 19—22 mm.
 » forcipis . . . 3—3,5 » . . . 4 »

Stout, and fairly large; smooth and shining, jet black except the red head and yellow feet.

Antennae dirty testaceous, paler at the base, then darker, with 20 segments, all pubescent; 3 is long and cylindrical, 4 and 5 together equalling 3 in length, nearly cylindrical; the rest lengthening, cylindrical.

Head clear brick-red, the mouth-parts darker, or nearly black.

Pronotum broadened posteriorly, the margins straight but posterior angles rounded, lateral borders almost concave as the margin itself is turned up, thus making a small triangular depression; the disc is flat and smooth.

Meso- and metanota smooth, and ample.

Feet clear testaceous.

Abdomen smooth, dull black, the last 3 segments somewhat rugulose; seen from the side, the segments are convex, the convexity being more apparent in each segment towards the apex of the abdomen; in the last four segments, the sides are also rugulose. Ventral segments smooth.

The last abdominal segment in the male is large and quadrate, but distinctly broader than long, with a faint median depression, and finely rugulose, the pattern being formed by rows of shallow and very small punctulations.

Penultimate ventral segment of the male is ample, quadrate and rugulose.

Last dorsal segment of the female resembles that of the male, but is somewhat narrower apically.

Pygidium in both sexes is only a fold in the chitin between the forceps.

Forceps of the male with the branches stout and triquetre at the base, where there is a strong depressed tooth on the inner margin; the two branches are curved differently, as in the typical species; the left branch is gently curved inwards throughout its length; the right branch is suddenly bent inwards at an almost acute angle before half its length and after this bend quite straight; the branches are attenuate after the basal third and unarmed after the base.

In the female the branches are triquetre and stout, attenuate about half way down, contiguous, denticulate on the inner margin and subsinuate.

The larvae are quite different from the adult insect; the head is dull black like the rest of the body; the feet are dirty yellow, with a distinct fuscous ring; the build is more slender and the forceps are more slender unarmed and nearly straight.

Kilimandjaro: Kiboscho. »Im obersten Teil des Gürtelwaldes an der Grenze

zu den Bergwiesen; ca. 3,000 m., unter Moos auf Bäumen.» II. 06. 18 males, 17 females, and 22 immature specimens.

This is a very distinct species; in the black body and read head it resembles *A. laeta* GERST., but is considerably larger and the characteristic forceps easily distinguish it; it resembles that species in having the sides of the dorsal abdominal plates terminating in a convexity towards the apex of the abdomen, but this convexity is less pronounced than in that species, and instead of being furnished with one horizontal carina, the sides of these rings are rugulose.

The forceps are bent as in the typical species of the genus, *A. maritima*, but the bend is much more abrupt; the shape of the forceps and the tooth near the base recall *A. brunneri*, from Australia, but in that species the coloration is different, the basal tooth of the forceps is blunt, not sharp, and the branches are bent and not abruptly angled.

It is undoubtedly allied to a hitherto undescribed species from Nyassa, in my collection, of which I append the description for purposes of comparison.

It also resembles *A. rufescens* KIRBY, from West Africa, but the coloration is different and the forceps are not the same.

Anisolabis infelix n. sp.

Statura majore; colore nigro; capite fusco-castaneo; antennae segmentis 4 et 2 brevibus, conicis, ceteris conico-cylindricis; pro-, meso- et metanota punctulata; abdomen glabrum, minute punctulatum; ♂ segmentis apicalibus lateribus convexis et rugulosis; forcipis brachia subcontigna, valida, apice attenuata et incurva.

	♂	♀
Long. corporis . . .	20 mm.	21 mm.
» forcipis . . .	3 »	4,5 »

Large; deep black, head dark reddish chestnut.

Antennae with (?) segments, deep reddish black; 3 not so long as in other species; 4 and 5 together equal in length to 3, conical; the rest longer, passing from conical to cylindrical.

Head smooth, deep chestnut, almost black.

Pronotum subquadrate, punctulate, slightly broader posteriorly than anteriorly, the lateral margins exceedingly narrowly reflexed and reddish.

Meso- and metanotum ample, flat, deep dull black, and punctulate.

Feet dirty yellow, with yellow pubescence; femora and tibiae rather short.

Abdomen dark reddish black, entirely punctulate; in the ♂ dorsal segments at the sides gently convex in the basal segments, distinctly convex in the apical segments; the convex part distinctly rugulose in the apical segments.

Venter shining, much more finely punctulate.

Last dorsal segment, ample, subquadrate, with rows of exceedingly minute punctulations.

Forceps with the branches short, very stout, and triquetre at the base, nearly contiguous, gently curved inwards and upwards, attenuate apically, not toothed.

Hab:—NYASSA (one pair in my collection, brought from a German dealer).

I describe this species here in order to compare it with the allied species from Kilimandjaro; in the structure of the sides of the apical dorsal abdominal segments it approaches *A. laeta*, as also somewhat in the shape of the forceps, but it is much larger and of a stouter build. The female resembles the male in every respect except that the convexity of the sides of the abdominal segments is far less pronounced, and they are less rugulose; is also the case in *A. laeta*,

Gen. *Chaetospasia* Karsch.

Berl. ent. Zeit. XXX, p. 87. 1886.

Chaetospasia rodens n. sp.

(Pl. 1, fig. 5.)

Caput, pronotum, clytra, alae atra; pedes, abdomen forceps rubra; pygidium maris breve, obtusum, triangulare, apice margine depresso, lobulo subquadrato depresso instructo; pygidium feminae breve, subquadratum, inerme; forcipis brachia elongata, depressa, fere recta; maris margine interno basi fortiter dentata, dente secundo in tertia parte apicali sito, dehinc denticulato, apice incurva; feminae dente basali obtuso, in dimidio apicali denticulata, et subincrassata.

Long. corporis . . . 7—10 mm. . . . 7—9 mm.
 » forcipis . . . 2—3,5 » . . . 1,75—3 »

Antennae dark testaceous, with 12 segments, the second very small and short, the rest gradually lengthening, all cylindrical.

Head smooth, black, the hinder margin slightly emarginate.

Pronotum subquadrate, anterior border convex, the posterior gently rounded, the sides parallel; prozona somewhat tumid, metazona depressed, with a faint median carina.

Elytra flattened, black, covered with very fine and minute punctulations, not very dense; the lateral borders clothed with short stiff bristles.

Wings long, black, of the same texture as the elytra.

Feet clear yellowish, with fine yellowish pubescence; the femora not notably short nor very much incrassate.

Abdomen red, blackish at the base, with the lateral tubercles fairly distinct; finely and densely punctulate above; the venter more coarsely punctulate; the first four ventral segments are paler in colour and less densely punctulate than the others.

Pygidium of the male short, in the form of a blunt and stumpy triangle, thick at the base and depressed as well as narrowed; the apex is depressed into a very small flattened lobe, on the edge of which three very minute tubercles are just distinguishable with a strong glass; in the female the pygidium is short and nearly square, not narrowed, nor depressed and quite smooth.

The forceps of the two sexes have the branches elongate, nearly straight, incurved at the apex itself, and very distinctly flattened, of a deep red colour; at the base itself on the lower side of the inner margin there is a strong but blunt tooth in both sexes; in the male the inner margin is smooth beyond this tooth to about the second third of their length where there is a sharp tooth; beyond this tooth the margin is denticulated; in the female, the inner margin is smooth in the first third, and then somewhat incrassate and denticulate to the apex. The forceps are clothed with a long fine pale pubescence in both sexes.

Kilimandjaro: Kibonoto (cultivated zone) under dead leaves of banana and between the sheaths of *Papyrus*, 1,300—1,900 metres, 20 males, 27 females and

5 immature; 6.—20. IX. 05, 3. X. 05, 1.—3. XI. 05, 30. XII. 05, and 12. IV. 06. One from a rest of *Termes goliath*.

Of those which are dated, the most numerous appear to have been taken from September to November; in April, a solitary male.

This species has a distinct resemblance to *Ch. feae*, *Ch. confusa* and the other red and black species, but the stumpy triangular form of the pygidium is distinctive; the three little points at the end are so minute as to be scarcely visible.

Gen. **Spongiphora** SERVILLE.

Ann. Ac. nat. XXII. p. 31, 1831.

Spongiphora quadrimaculata STÅL.

Öfv. Vet. Ak. Förh. XII. p. 348, 1855.

Kilimandjaro: Kibonoto. 4 males, 12 females and 4 larvae. XI. 05.

Pl. 1, fig. 6. This species is probably widely distributed in Africa; it is recorded from Natal and Cape Colony, and there are specimens from Fernando Po in the Paris Museum and in my own collection.

Gen. **Chelisoches** SCUDDER.

Proc. Boston Soc. N. H. XVIII. p. 292, 1876.

Chelisoches morio FABR.

Syst. Ent. 270, 1775.

Usambara: Tanga, one male. Not yet recorded from the interior of Africa; it is universally distributed through the islands of the Pacific and is frequently taken on the east coast of Africa, but it is probably not indigenous on that continent.

Gen. **Diaperasticeus** BURR.

Tr. ent. Soc. London 1907, p. 98.

Diaperasticeus erythrocephalus OLIV. (nec. FABR.).

Enc. Méth. VI. p. 468, 1791.

Usambara: Tanga, one male. This species is common throughout tropical Africa, including Madagascar, and is always represented by numerous specimens in all collections.

Diaperasticeus sansibarica KARSCH.

Berl. ent. Zeit. XXX. p. 90, pl. 3. fig. 8, 1886.

Apterygida mackinderi BURR. Ann. Mag. N. H. (7) VI. p. 83. pl. IV. fig. 3, 3a, 1900.

Kilimandjaro: Kibonoto, 24 males, 35 females and six larvae, in September, between the sheaths of the *Papyrus*.

The insect described by KARSCH was taken at Zanzibar (a single specimen) by J. M. HILDEBRANDT; a few specimens were known to exist in museums and collections.

The type of *A. mackinderi* Burr was taken by Mr. H. J. Mackinder in July 1899 at Nairobi, about 5,500 ft, in the Kikuyu country, in British East Africa; in appearance it is very different from what appears to be the typical form described by Karsch; but Dr. Sjöstedt has brought home such a good series that I have been able to examine a large number of specimens, and I can find no structural difference, and so feel obliged to sink the name *mackinderi* as a synonym; it may however be conveniently employed to denote the larger and paler coloured specimens, which seem at first so different; but the two form pass insensibly into one another, and of the specimens brought home by Dr. Sjöstedt I have been unable to draw the line where the small dark form begins and the large paler form ends. There are specimens in the British Museum and my collection which have the elytra almost black; these are from Port Natal; in those taken by Betton in British East Africa (Mbuyuni), they are uniform deep chestnut, as they are in many of Dr. Sjöstedt's specimens, while in others they are chestnut in the centre, bordered with dark brown; the two forms appear to occur together, as there are specimens of both varieties noted by Dr. Sjöstedt from the same locality at the same date.

Gen. **Apterygida** Westwood.

Introd. Mod. Class. Ins. II. p. 44, 1840.

Apterygida arachidis Yers.

Ann. Soc. ent. Fr. (3) VIII. p. 509, figg. 33—35, 1860.

Kilimandjaro: Kibonoto, 25. VII. 05. This is a cosmopolitan species, having been distributed almost throughout the world by commerce and ships. It has been previously recorded by Gerstaecker from the district of Mombasa, under the name of *Forficula (Apterygida) gravidula* (Arch. f. Naturg. XXV. (1) p. 221, 1869.

It will probably be removed from this genus, but I retain here at least provisionally for the sake of convenience.

Gen. **Forficula** Linnaeus.

Syst. Nat. ed. X, vol. 1, p. 423, 1758.

Forficula senegalensis Serville.

Orth. p. 39, 1839.

Meru-Niederung, Ngare na nyuki, 2 males. Widely distributed through Africa, from Senegal to Kordofan, from the Sudan to Cape Colony, but variable in coloring and the form of the forceps; perhaps it will be shown to really consist of two species confused together.

Forficula rodziankoi Semenov.

Rev. russe d'Ent. p. 48, 1901.

Meru-Niederung, west from the mountain, 27. XII., 3 male, 4 females.

Kilimandjaro: Kibonoto, 1,300—1,900 m. under dead leaves of banana etc., 2 males and 2 females.

Pl. 1, fig. 7. Originally described by SEMENOV from Harar; I have a specimen from Kilimandjaro labelled »BORNEMISZA» and in the Paris Museum there are specimens from Abyssinia; probably it occurs in all the mountains of East Africa up to about 2,000 feet, where it is apparently replaced by the following species.

Forficula sjöstedti n. sp.

(Pl. 1, fig. 8.)

Statura mediocri, minus fortiori; antennae 12-segmentatae; segmenta subconica, fusco-testacea; caput laeve; pronotum sublatius quam longius, postice rotundatum; elytra brevia, unicoloria; alae abortivae; pedes testacei; abdomen typicum, fusco-testaceum castaneum, minutissime punctulatum; segmentum ultimum rectangulare, punctulatum: pygidium ♂ elongato-productum, linguaeforme, angustum, apice attenuatum et obtusum; ♀ breve, angustatum, apice truncatum: forcipis ♂ brachia gracilia, per tertiam partem basalem margine interno deplanato ac dilatato, margine ipso crenulato, hac parte dente parvo obtuso terminata; dehinc attenuata, inermia, arcuata: ♀ recta, simplicia.

	♂		♀
Long. corporis . . .	8,5—9,75 mm.	. . .	8,5—9 mm.
» forcipis . . .	3,5—6	»	1,75—2 »

Stature moderate, slender.

Colour dark chestnut; elytra and feet dirty testaceous.

Head dark chestnut, merging into black, smooth and shining.

Antennae dirty testaceous, somewhat paler near the base; with twelve segments which are somewhat short and subconical.

Pronotum slightly broader than long; anterior and lateral margins straight; posterior margin rounded; smooth, dirty testaceous.

Elytra rather short, smooth and leathery; dirty testaceous; posterior border obliquely truncate, so that the elytra are shorter along the suture than on the external margin.

Wings abortive.

Feet testaceous, typical; the lobes of the second tarsal segment large.

Abdomen typical, dark chestnut, almost black, covered with exceedingly fine punctulations; lateral tubercles on segments 3 and 4 small but distinct.

Last dorsal segment transverse, rectangular, very finely punctate; posterior margin straight, incrassate in the middle; in the female, attenuate posteriorly.

Pygidium ♂ tongue-shaped, elongate, narrowed towards the apex which is narrow, but not pointed. In the ♀ short narrowed, but truncate apically.

Forceps ♂ with the branches in the basal third not themselves deplanate, but the inner border is dilated and deplanate; along the external margin, the convexity is apparent; the dilated part is excavate inside at the base, to admit the long pygidium; the inner margin of the dilated part is quite straight, crenulate and terminated by a short blunt tooth, situate rather on the underside; externally the

branches are sinuate even in the basal third, giving the appearance of a slight waist or constriction. The apical part of the forceps is slender, unarmed and gracefully curved to include an elliptical area.

In the female the branches are short, slender, straight and simple.

Kilimandjaro: Kiboscho in the »Bergwiesen«, at 3,000—3,700 m., in the »*Ericinella*-Formation«, in dead flowers of *Lobelia deckeni* (over 100 specimens).

Kilimandjaro: Kiboscho, 3,—4,000 m., February 1906, at the highest parts of the limits of the vegetation. (Several hundred specimens.) Also a few under moss, on trees etc., in the very highest parts of the woods which encircle the mountain at 3,000 m. Most of the specimens are from the treeless »Bergwiesen«.

Meru: On the highest part of the mountain, about 4,000—4,300 m., 21.—27. XII. 05, one male of the form *macrolabia*.

There are altogether 449 specimens, of which 31 are of the *macrolabia* form of male, 97 of the typical form of male, 226 females, and 93 immature specimens; there are two males having one branch of the forceps atrophied, thus presenting a superficial appearance of gynandromorphism.

One pair from Kibonoto, 2,000—3,000 metres; (»Regenwald«) is slightly different from the specimens from the higher altitude, but I can find nothing justifying specific rank; they are darker in colour, which may be due to the fact that this pair was received dry and pinned, whereas the others came in alcohol, the sculpture of the body is a little more marked, and the forceps of the male a trifle straighter, and the head and feet more reddish in colour. This is probably a representative of a local variation, on the borders of its distribution.

Of this species, Dr. SJÖSTEDT writes me: »... sie war an den höchsten Teilen des Berges, auf den Bergwiesen, sehr gemein, sowohl unter Steinen als besonders in den grossen, trockenen Blumenständen der *Lobelia deckeni*. Solche wurden massenhaft abgebrochen und zwischen den Händen über Zeitungen zermalmt, wobei eine Menge Insekten, auch solche Arten, die ich sonst nie sah, gefunden worden. Obgleich diese hochalpine Gegend selbstverständlich an Insekten ziemlich arm sind, konnte ich bei meiner Fahrt von dort 6—7,000 Stücke mitbringen«.

In build and appearance, it looks more like a European than an African earwig, as would be expected from its elevated habitat; it appears to be related to *F. atolica* and *F. caucasica*, neither of which, however, are known to me except from their descriptions.

That a peculiar species of earwig should be confined to one mountain is not by any means remarkable; in Europe, we find the genus *Chelidura* (*sensu antiquo*) distributed over the mountain districts, but there is always a distinct species for each group of mountains; thus we have *Pseudochelidura analis* RAMBUR, in the Sierra Nevada, *Mesochelidura bolivari* BORM., in the mountains of central Spain, the Sierras of Guadarrama and of Peñalara; *Pseudochelidura sinuata* GERM., and *Chelidura pyrenaica* GÉNÉ., in the eastern and western Pyrenees respectively; *Pseudochelidura edentula* WOLL., in the island of Madeira, with *Ps. schmitzsi* BORELLI; *Ps. orsinii* GÉNÉ.,

in the Apennines, *Chelidura aptera* CHARP., in the southern Alps, *Chelidurella mutica* KR., in the Tirol, and *C. acanthopygia* GÉNÉ., in the hills of north central Europe.

F. sjöstedti is more graceful and slender in build than the above insects, but is of the same colour, and like them, is incapable of flight.

Gen. *Pseudochelidura* VERHOEFF.

Zool. Anz. No. 665, p. 196. 1902.

sp. Kibonoto, 1,800—1,900 m., one female. It is unfortunate that no male of this species was brought to Europe; it is impossible to determine its true position from a single female, but it is undoubtedly a new species as the distribution of these flightless forms is always very restricted, and no species of *Pseudochelidura* has yet been described from this part of Africa.¹ In appearance it resembles *P. edentula* WOLL., but I refrain from describing and naming it until further material is available.

**List of Species of Dermaptera hitherto known from the
Kilimandjaro-Meru District.**

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|---|--|
| 1. <i>Pygidicrana bettoni</i> KIRBY. | 11. <i>Spongiphora quadrimaculata</i> STÅL. |
| 2. <i>Echinosoma wahlbergi</i> DOHRN. | 12. <i>Chelisoches morio</i> FABR. |
| 3. <i>Bormansia africana</i> VERH. | 13. <i>Diaperastiens erythrocephalus</i> OLIV. |
| 4. <i>Bormansia impressicollis</i> VERH. | 14. <i>Diaperastiens sansibaricus</i> KARSCH. |
| 5. <i>Anisolabis laeta</i> GERST. | 15. <i>Apterygida arachidis</i> YERS. |
| 6. <i>Anisolabis amulipes</i> LUC. | 16. <i>Forficula senegalensis</i> SERV. |
| 7. <i>Anisolabis felix</i> BURR. n. sp. | 17. <i>Forficula rodziankoi</i> SEM. |
| 8. <i>Leptisolabis nsambarana</i> VERH. | 18. <i>Forficula sjöstedti</i> BURR. n. sp. |
| 9. <i>Leptisolabis theoriae</i> VERH. | 19. <i>Pseudochelidura</i> sp. |
| 10. <i>Chaetospania rodens</i> BURR. n. sp. | |

¹ Since the above was written BORELLI has described under the name of *Apterygida cavalli* a flightless form that may be referable to this genus. (v. Boll. Mus. Torino. XXI. No 541 from the Ruwenzori district taken by the Duke of the Abruzzi).

PLATE 1.

Plate 1.

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|--|---|
| 1. <i>Pygidicrana bettoni</i> KIRB. ♂ | 5. <i>Chatospania rodens</i> BURR. n. sp. ♂ |
| 2. <i>Echinosoma wahlbergi</i> DOHRN. ♂ | 6. <i>Spongiphora quadrimaculata</i> STÄL. ♂ |
| 3. <i>Anisolabis læta</i> GERST. ♂ | 7. <i>Forficula rodziankoi</i> SEM. ♂ |
| 4. » <i>felix</i> BURR. n. sp. ♂ | 8. » <i>sjöstedti</i> BURR. n. sp. ♂; marolabia form. |
| 4 a. » » abdomen a latere visum. | 8 a. » » » » forceps. |



